

WHAT IS CLAIMED IS:

1. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital subscriber line (ADSL) overlap spectrum transmission over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:
5 approximately -97.5 decibel-milliwatts per hertz (dBm/Hz) at approximately 0 kilohertz (kHz);

approximately -97.5 dBm/Hz at approximately 4 kHz;

approximately -92.5 dBm/Hz at approximately 4 kHz;

10 approximately -36.5 dBm/Hz at approximately 25 kHz;

approximately -36.5 dBm/Hz at approximately 1104 kHz;

approximately -46.5 dBm/Hz at approximately 2208 kHz;

approximately -101.5 dBm/Hz at approximately 3925 kHz;

approximately -101.5 dBm/Hz at approximately 8500 kHz;

15 approximately -103.5 dBm/Hz at approximately 8500 kHz; and

approximately -103.5 dBm/Hz at approximately 11040 kHz.

2. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital subscriber line (ADSL) non-overlap spectrum over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:
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approximately -97.5 decibel-milliwatts per hertz (dBm/Hz) at approximately 0 kilohertz (kHz);

approximately -97.5 dBm/Hz at approximately 4 kHz;

25 approximately -72.5 dBm/Hz at approximately 80 kHz;

approximately -36.5 dBm/Hz at approximately 138 kHz;

approximately -36.5 dBm/Hz at approximately 1104 kHz;

approximately -46.5 dBm/Hz at approximately 2208 kHz;

approximately -101.5 dBm/Hz at approximately 3925 kHz;

30 approximately -101.5 dBm/Hz at approximately 8500 kHz;

approximately -103.5 dBm/Hz at approximately 8500 kHz; and
approximately -103.5 dBm/Hz at approximately 11040 kHz.

3. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital
subscriber line (ADSL) overlap spectrum over a plain old telephone system (POTS), the
PSD mask represented at least in part by a plurality of break points, the plurality of break
points including:

approximately -97.5 decibel-milliwatts per hertz (dBm/Hz) at approximately 0 kilohertz
(kHz);

approximately -97.5 dBm/Hz at approximately 4 kHz;
approximately -92.5 dBm/Hz at approximately 4 kHz;
approximately -56.5 dBm/Hz at approximately 25 kHz;
approximately -56.5 dBm/Hz at approximately 1104 kHz;
approximately -46.5 dBm/Hz at approximately 2208 kHz;
approximately -101.5 dBm/Hz at approximately 3925 kHz;
approximately -101.5 dBm/Hz at approximately 8500 kHz;
approximately -103.5 dBm/Hz at approximately 8500 kHz; and
approximately -103.5 dBm/Hz at approximately 11040 kHz.

4. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital
subscriber line (ADSL) non-overlap spectrum over a plain old telephone system (POTS),
the PSD mask represented at least in part by a plurality of break points, the plurality of
break points including:

approximately -97.5 decibel-milliwatts per hertz (dBm/Hz) at approximately 0 kilohertz
(kHz);

approximately -97.5 dBm/Hz at approximately 4 kHz;
approximately -92.5 dBm/Hz at approximately 80 kHz;
approximately -56.5 dBm/Hz at approximately 138 kHz;
approximately -56.5 dBm/Hz at approximately 1104 kHz;
approximately -46.5 dBm/Hz at approximately 2208 kHz;
approximately -101.5 dBm/Hz at approximately 3925 kHz;

approximately -101.5 dBm/Hz at approximately 8500 kHz;
approximately -103.5 dBm/Hz at approximately 8500 kHz; and
approximately -103.5 dBm/Hz at approximately 11040 kHz.

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5. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital subscriber line (ADSL) overlap spectrum over an integrated digital services network (ISDN), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:

10 approximately -90 decibel-milliwatts per hertz (dBm/Hz) at approximately 0 kilohertz (kHz);

approximately -90 dBm/Hz at approximately 93.1 kHz;

approximately -62 dBm/Hz at approximately 209 kHz;

approximately -36.5 dBm/Hz at approximately 255 kHz;

15 approximately -36.5 dBm/Hz at approximately 1104 kHz;

approximately -46.5 dBm/Hz at approximately 2208 kHz;

approximately -101.5 dBm/Hz at approximately 3925 kHz;

approximately -101.5 dBm/Hz at approximately 8500 kHz;

approximately -103.5 dBm/Hz at approximately 8500 kHz; and

20 approximately -103.5 dBm/Hz at approximately 11040 kHz.

6. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital subscriber line (ADSL) overlap spectrum over an integrated digital services network (ISDN), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:

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approximately -90 decibel-milliwatts per hertz (dBm/Hz) at approximately 0 kilohertz (kHz);

approximately -90 dBm/Hz at approximately 93.1 kHz;

approximately -62 dBm/Hz at approximately 209 kHz;

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approximately -56.5 dBm/Hz at approximately 255 kHz;

approximately -56.5 dBm/Hz at approximately 1104 kHz;

approximately -46.5 dBm/Hz at approximately 2208 kHz;

approximately -101.5 dBm/Hz at approximately 3925 kHz;
 approximately -101.5 dBm/Hz at approximately 8500 kHz;
 approximately -103.5 dBm/Hz at approximately 8500 kHz; and
 approximately -103.5 dBm/Hz at approximately 11040 kHz.

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7. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital subscriber line (ADSL) overlap spectrum transmission over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:

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-97.5±5% decibel-milliwatts per hertz (dBm/Hz) at 0±5% kilohertz (kHz);
 -97.5±5% dBm/Hz at 4±5% kHz;
 -92.5±5% dBm/Hz at 4±5% kHz;
 -36.5±5% dBm/Hz at 25±5% kHz;
 -36.5±5% dBm/Hz at 1104±5% kHz;
 -46.5±5% dBm/Hz at 2208±5% kHz;
 -101.5±5% dBm/Hz at 3925±5% kHz;
 -101.5±5% dBm/Hz at 8500±5% kHz;
 -103.5±5% dBm/Hz at 8500±5% kHz; and
 -103.5±5% dBm/Hz at 11040±5% kHz.

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8. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital subscriber line (ADSL) non-overlap spectrum over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:

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-97.5±5% decibel-milliwatts per hertz (dBm/Hz) at 0±5% kilohertz (kHz);
 -97.5±5% dBm/Hz at 4±5% kHz;
 -72.5±5% dBm/Hz at 80±5% kHz;
 -36.5±5% dBm/Hz at 138±5% kHz;
 -36.5±5% dBm/Hz at 1104±5% kHz;
 -46.5±5% dBm/Hz at 2208±5% kHz;

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- 101.5±5% dBm/Hz at 3925±5% kHz;
- 101.5±5% dBm/Hz at 8500±5% kHz;
- 103.5±5% dBm/Hz at 8500±5% kHz; and
- 103.5±5% dBm/Hz at 11040±5% kHz.

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9. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital subscriber line (ADSL) overlap spectrum over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:

- 10 -97.5±5% decibel-milliwatts per hertz (dBm/Hz) at 0±5% kilohertz (kHz);
- 97.5±5% dBm/Hz at 4±5% kHz;
- 92.5±5% dBm/Hz at 4±5% kHz;
- 56.5±5% dBm/Hz at 25±5% kHz;
- 56.5±5% dBm/Hz at 1104±5% kHz;
- 15 -46.5±5% dBm/Hz at 2208±5% kHz;
- 101.5±5% dBm/Hz at 3925±5% kHz;
- 101.5±5% dBm/Hz at 8500±5% kHz;
- 103.5±5% dBm/Hz at 8500±5% kHz; and
- 103.5±5% dBm/Hz at 11040±5% kHz.

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10. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital subscriber line (ADSL) non-overlap spectrum over a plain old telephone system (POTS), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:

- 25 -97.5±5% decibel-milliwatts per hertz (dBm/Hz) at 0±5% kilohertz (kHz);
- 97.5±5% dBm/Hz at 4±5% kHz;
- 92.5±5% dBm/Hz at 80±5% kHz;
- 56.5±5% dBm/Hz at 138±5% kHz;
- 56.5±5% dBm/Hz at 1104±5% kHz;
- 30 -46.5±5% dBm/Hz at 2208±5% kHz;
- 101.5±5% dBm/Hz at 3925±5% kHz;

- 101.5±5% dBm/Hz at 8500±5% kHz;
- 103.5±5% dBm/Hz at 8500±5% kHz; and
- 103.5±5% dBm/Hz at 11040±5% kHz.

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11. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital subscriber line (ADSL) overlap spectrum over an integrated digital services network (ISDN), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:

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- 90±5% decibel-milliwatts per hertz (dBm/Hz) at 0±5% kilohertz (kHz);
- 90±5% dBm/Hz at 93.1±5% kHz;
- 62±5% dBm/Hz at 209±5% kHz;
- 36.5±5% dBm/Hz at 255±5% kHz;
- 36.5±5% dBm/Hz at 1104±5% kHz;
- 46.5±5% dBm/Hz at 2208±5% kHz;
- 101.5±5% dBm/Hz at 3925±5% kHz;
- 101.5±5% dBm/Hz at 8500±5% kHz;
- 103.5±5% dBm/Hz at 8500±5% kHz; and
- 103.5±5% dBm/Hz at 11040±5% kHz.

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12. A power spectral density (PSD) mask for spectral shaping of an asynchronous digital subscriber line (ADSL) overlap spectrum over an integrated digital services network (ISDN), the PSD mask represented at least in part by a plurality of break points, the plurality of break points including:

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- 90±5% decibel-milliwatts per hertz (dBm/Hz) at 0±5% kilohertz (kHz);
- 90±5% dBm/Hz at 93.1±5% kHz;
- 62±5% dBm/Hz at 209±5% kHz;
- 56.5±5% dBm/Hz at 255±5% kHz;
- 56.5±5% dBm/Hz at 1104±5% kHz;
- 46.5±5% dBm/Hz at 2208±5% kHz;
- 101.5±5% dBm/Hz at 3925±5% kHz;
- 101.5±5% dBm/Hz at 8500±5% kHz;

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-103.5±5% dBm/Hz at 8500±5% kHz; and
-103.5±5% dBm/Hz at 11040±5% kHz.